



सत्यमेव जयते

The Gazette of India

PUBLISHED BY AUTHORITY

NEW DELHI, SATURDAY, DECEMBER 21, 1963 (AGRAHAYANA 30, 1885)

Separate paging is given to this Part in order that it may be filed as a separate compilation

PART III—SECTION 4

Miscellaneous Notifications including Notifications, Orders, Advertisements
and Notices issued by Statutory Bodies

STATE BANK OF INDIA

NOTICE

New Delhi, the 5th December 1963

In pursuance of Regulation 40(1) of the State Bank of India General Regulations 1955, it is hereby notified that Dr. P. S. Lokanathan of 5-B, Pusa Road, New Delhi-5, being the only person validly nominated for election shall be deemed to be elected as a Member of the New Delhi Local Board of the State Bank of India on the 18th December 1963, with effect on and from the 1st January 1964, and that the Local Meeting of Shareholders which was to be held on Wednesday, the 18th December 1963, in terms of the Bank's Notice of the 30th October 1963, solely for the purpose of the aforesaid election, stands cancelled.

N. H. VAJIFDAR

Secretary

New Delhi Local Board

NOTICE

New Delhi, the 6th December 1963

The following appointments on the Bank's staff are hereby notified :—

Shri R. L. Dhingra, Staff Officer, Grade III, held temporary charge of Okhla (New Delhi) Branch, from the close of business on the 5th September to the close of business on the 19th September 1963, *vice* Shri K. D. Chandna, Officer.

Shri R. N. Sharma, Staff Officer, Grade III, to be Trainee Accountant, Central Secretariat (New Delhi) Branch, from the close of business on the 23rd October 1963, *vice* Shri M. M. Lal, Sub-Accountant.

N. H. VAJIFDAR

Secretary & Treasurer

NOTICE

Central Office

Bombay, the 13th December 1963

The following appointment on the Bank's staff is hereby notified :—

Shri M. A. Narayanan to officiate as Additional Chief Officer (Operations), Central Office, with effect from the 9th December 1963.

N. A. KRISHNAN,

Managing Director.

STATE BANK OF BIKANER AND JAIPUR

(Subsidiary of the State Bank of India)

Incorporated in India under special Statute;

The liability of the Members is Limited.

Jaipur, the 17th December 1963

NOTICE is hereby given that the register of shareholders of the Bank shall remain closed from Wednesday, the 1st January, 1964 to Tuesday, the 21st January 1964, both days inclusive.

NOTICE is hereby given that the Third Annual General Meeting of the shareholders of the State Bank of Bikaner and Jaipur will be held at the Bank's Head Office, Sawai Mansingh Highway, Jaipur on Friday, the 14th February, 1964 at 3-30 P.M. (Standard Time) to discuss the Balance Sheet and Profit and Loss Account of the State Bank of Bikaner and Jaipur for the year ended the 31st December 1963, the report of the Directors on the working of the Bank for the same period and the Auditor's report on the Balance Sheet and accounts.

By order of the Board,

BALWANT SINGH

General Manager

INSTITUTE OF CHARTERED ACCOUNTANTS OF INDIA

New Delhi-1, the 10th December 1963

No. 4-CA(1)/12/63-64—In pursuance of Regulation 12 of the Chartered Accountants Regulations, 1949, it is hereby notified that in exercise of the powers conferred by clause (b) of sub-Section (1) of Section 20 of the Chartered Accountants Act, 1949, the Council of the Institute of Chartered Accountants of India has removed from the Register of Members, with effect from the 23rd day of November 1963, at his own request the name of Shri Satya Ranjan Sen, 13, Jagannath Datta Lane, Calcutta-9, (Membership No. 1216).

No. 8-CA(1)/12/63-64—In pursuance of clause (3) of Regulation 10 of the Chartered Accountants Regulations, 1949, it is hereby notified that the Certificate of Practice issued to Shri S. Muthuswami, A.C.A., C/o Shri S. M. Sundaram, 11/216, Gulestan, Sion (East), Bombay-22, Membership No. 6274, shall stand cancelled with effect from the 26th October, 1963 to the 30th June, 1964.

C. BALAKRISHNAN

Secretary

DEPARTMENT OF POSTS AND TELEGRAPHS**Office of the Director General of Posts and Telegraphs
NOTICES***New Delhi, the 12th December 1963*

No. 25/5/63-LI—Postal Life Insurance Policy No. 19323-C dated the 5-1-1939 for Rs. 10,000 held by Shri Radha Krishan Khanna, having been lost from his custody notice is hereby given that the payment thereof has been stopped. The Deputy Director, P.L.I., Calcutta has been authorised to issue a duplicate policy in favour of the insurant. The Public are hereby cautioned against dealing with the original policy.

No. 25/43/63-LI—Postal Life Insurance Policy No. LC-1262 dated the 15-12-61 for Rs. 10,000 held by Shri S. C. Suri, having been lost from his custody notice is hereby given that the payment thereof has been stopped. The Deputy Director, P.L.I., Calcutta has been authorised to issue a duplicate policy in favour of the insurant. The Public are hereby cautioned against dealing with the original policy.

S. B. VELANKAR
Director
Postal Life Insurance

MINISTRY OF LABOUR AND EMPLOYMENT**Employees' State Insurance Corporation***New Delhi, the 3rd December 1963*

No. INS. I. 22(1)-3/63—In exercise of the powers conferred by sub-regulation (1) of Regulation 5 of the Employees' State Insurance (General) Regulations, 1950 I hereby determine that in the areas specified in the Schedule given below the first contribution and first benefit periods for Sets A, B and C shall begin and end in respect of persons in insurable employment on the appointed day of midnight of 30th November 1963 as indicated in the table given below :

Set	First contribution period		First benefit period	
	Begins on midnight of	Ends on midnight of	Begins on midnight of	Ends on midnight of
A	30-11-1963	25-1-1964	29-8-1964	31-10-1964
B	30-11-1963	28-3-1964	29-8-1964	26-12-1964
C	30-11-1963	30-5-1964	29-8-1964	27-2-1965

(ii) In pursuance of the proviso to section 47 of the Employees' State Insurance Act, 1948 (34 of 1948), the condition regarding minimum number of twelve contributions payable during a contribution period for entitlement to sickness benefit in the corresponding benefit period is hereby waived for the first contribution period in respect of the insured persons in the areas specified in the Schedule given below who are allotted Sets A & B for whom the first contribution period begins on midnight of 30th November 1963 and ends on midnight of 25th January 1964, and 28th March 1964 respectively.

SCHEDULE

I. The area within the limits of the revenue village of Shencottah in Shencottah Taluk, in Tirunelveli District.

II. The area within the limits of the revenue villages of :—

- (a) Vadiveeswaram;
- (b) Vadasserry; and
- (c) Nagercoil.

in Agastheeswaram taluk, in Kanyakumari District.

V. N. RAJAN
Director General

Amritsar, the 6th December 1963

No. ASR. Adm. 18(8)/62—It is hereby notified that Local Committee of the following members has been set up for Kharar Area (Where chapter IV and V of the Employees' State Insurance Act, 1948 are in force) under Regulation 10-A of the E.S.I. (General) Regulation 1950 with effect from the date of notification.

Chairman

Under Regulation 10-A(1)(a):—

- 1. Sub-Divisional Officer (Civil),
Kharar.

Under Regulation 10-A(1)(b):—

- 2. Assistant Surgeon Incharge,
Government Dispensary,
Kharar.

Under Regulation 10-A(1)(c):—

- 3. Medical Officer Incharge,
E.S.I. Dispensary,
Kharar.

Under Regulation 10-A(1)(d):—

- 4. Shri Maha Dev Chawla,
Mashal Printing Press,
Kharar.
- 5. Shri Vishnu Kumar Gupta,
Panipat Woollen Mills,
Kharar.

Under Regulation 10-A(1)(e):—

- 6. Shri Gurdev Singh, President,
Panipat Woollen Mills, Workers' Union,
Kharar.
- 7. Shri Bhullan Ram, General Secretary,
Panipat Woollen and General Mills, Mazdoor
Sabha,
Kharar.

Under Regulation 10(A)(1)(f):—

- 8. Manager, Local Office,
E.S.I. Corporation,
Ludhiana. (Ex-Officio Secretary).

By order,

R. K. LUTHRA
Regional Director

Office of the Chief Inspector of Mines*Dhanbad, the 4th December 1963*

No. BOARD/CM/44807/63—In accordance with the provisions of sub-regulation (4) of Regulation 13 of the Coal Mines Regulations 1957, the following bye-laws for the conduct of examinations for, and grant of exchange certificates under Regulation 21 of the said regulations, are hereby made :

**BYE-LAWS FOR THE GRANT OF EXCHANGE
CERTIFICATES AND FOR THE CONDUCT
OF EXAMINATIONS THEREFOR.****1. Foreign certificates considered for exchange :**

- (1) For the purpose of sub-regulation (1) of regulation 21, each of the certificates (granted under laws for the regulation of mines in foreign countries) mentioned under column (2) of the table in Appendix I shall be considered to be a certificate of a class similar to the certificate mentioned against it under column (3) of the table.
- (2) A candidate for the grant of an exchange certificate mentioned under column (3) of the table aforesaid shall be required to obtain practical experience in coal mines in India, and appear at an examination, as specified against it under columns (4) and (5) respectively of the table.

2. Certificate under Metalliferous Mines Regulations considered for exchange :

- (1) For the purpose of sub-regulation (1) of regulation 22, each of the certificates (granted under the Metalliferous Mines Regulations made under the Mines Act) mentioned under column (2) of the table in Appendix II shall be considered to be a certificate of a class similar to the certificate mentioned against it under column (3) of the table.
- (2) A candidate for the grant of an exchange certificate mentioned under column (3) of the table aforesaid shall be required to obtain practical experience in coal mines in India, and appear at an examination, as specified against it under columns (4) and (5) respectively of the table.

3. Application to be supported by original documents :

- (1) Every certificate of experience should contain precise information about the capacity in which the candidate worked, the nature of work done, and the dates of commencement and termination of experience at each mine. No certificate of practical experience shall be considered unless it is granted by the manager of a mine.

- (2) No application shall be considered unless it is supported by original certificates as to qualifications held, experience, age, sound health and general good conduct, and is accompanied by evidence that the prescribed fee has been paid.

4. *Practical training of applicants for Manager's Exchange Certificate :*

- (1) The application, for approval of the course of practical training in coal mines in India, submitted by an applicant for the grant of Managers Exchange Certificate under the proviso to sub-regulation (2) of regulation 21 shall be submitted in the form in Appendix III.
- (2) The practical training should be in workings below-ground of a mine having an average monthly output of not less than 2,500 tons, and shall include training in depillaring operations for a period of not less than six months.

5. *Examination of candidates for the Manager's Exchange Certificate :*

- (1) (a) Every candidate for the grant of a Manager's Exchange Certificate in lieu of a Manager's Certificate of a similar class as mentioned in Byelaw 1 above, shall be required to appear in an examination consisting of a written paper and an oral test for each of the following two subjects :

- (i) Winning and working
(ii) Mine Management, legislation and general safety.

The syllabus for the examination for the First Class Manager's Exchange Certificate shall be as laid down in Appendix IV and that for the Second Class Manager's Exchange Certificate as laid down in Appendix V.

- (b) Every candidate for the grant of a Manager's Exchange Certificate in lieu of a Manager's Certificate of a similar class as mentioned in Byelaw 2 above, shall be required to appear in an examination consisting of a written paper and an oral test for each of the following three subjects :

- (i) Winning and Working
(ii) Mine Ventilation, Explosions and fires.
(iii) Mine Management, Legislation and General Safety.

The syllabus for the examination for the First Class Manager's Exchange Certificate shall be as laid down in Appendix VI and that for the Second Class Manager's Exchange Certificate as laid down in Appendix VII.

- (2) The examiners appointed for the examinations shall be an Inspector of Mines for each of the subjects.
- (3) The examination shall carry a total maximum of 150 marks—for each subject a maximum of 100 marks for the written paper and of 50 marks for the orals test. In order to pass the examination, a candidate must obtain not less than 20 marks in the orals test in each subject and an aggregate of not less than 60% marks in the written examination and the orals test in all the subjects taken together.

6. *Practical Training of applicants for Overman's and Sirdar's Exchange Certificates:*

Every candidate for the grant of an Overman's or Sirdar's Exchange Certificate in lieu of a similar certificate mentioned under byelaws 1 and 2 shall be required to undergo a course of practical training for periods laid down in Appendices I and II, in the workings below ground of a coal mine in India producing an average monthly output of not less than 600 tons of the experience aforesaid not less than six months should be in depillaring operations.

7. *Examination of candidates for Overman's and Sirdar's Exchange Certificate :*

- (1) Every candidate for the grant of an Overman's Exchange Certificate shall be required to appear in an examination from the syllabus laid down in Appendix VIII.
- (2) Every candidate for the grant of a Sirdar's Exchange Certificate shall be required to appear in an orals test from the syllabus laid down in Appendix IX.
- (3) The oral examination shall be conducted in English, Hindi or the language of the district in India to which the candidate belongs.
- (4) The examiners appointed for the examination shall be two Inspectors of Mines.
- (5) The examination shall carry a total maximum of 100 marks. In order to pass the examination, a candidate must obtain not less than 60 marks.

8. *Identity and conduct of the candidates :*

- (1) Every candidate for a Manager's Exchange Certificate shall be required to sign in a register in which his roll number has been recorded.
- (2) (a) Every candidate for an Overman's or Sirdar's Certificate shall, at the time of the examination, hand over the authorisation issued to him for appearing in the examination and two unmounted photographs of himself (of a size approximately 5 cm × 6.5 cm), to the Local Secretary for the examination who, after satisfying himself that each photograph is a likeness of the candidate, shall endorse each of them on the back with the name of the candidate.
- (b) The Local Secretary of the examination shall record the left hand thumb impression of every successful candidate for the grant of an Overman's or Sirdar's Exchange Certificate.
- (3) Every candidate shall conduct himself as required by the Local Secretary of the examination. The Rules laid down in Appendix XII shall apply to the conduct of the written examination.
- (4) (a) Any candidate who submits a false certificate or counterfeits a certificate or makes a false declaration or adopts unfair means during the examination, may be disqualified by the Board and also debarred from appearing at any subsequent examinations for a specified period not exceeding three years depending upon the facts of the case.
- (b) If a candidate who has been declared successful in any examination for the grant of an Exchange Certificate or who has been granted an Exchange Certificate, is found later on to have submitted a false certificate or counterfeited a certificate or made a false declaration, the Board may cancel his result or withdraw the exchange certificate issued to him, as the case may be.

9. *Result and re-examination :*

- (1) The result of an examination held under these byelaws, as approved by the Board, shall be communicated to the candidate(s) concerned in writing.
- (2) A candidate who has failed to pass an examination under these byelaws shall not be eligible for re-examination for a period of three months from the date of the examination in which he fails. Fees on the scale laid down in Regulation 20 shall be payable in respect of every application for re-examination.

APPENDIX I

(See Byelaw 1)

Equivalent of Foreign Certificates considered for Exchange

Sl. No.	Class of Certificate granted in the foreign Country	Certificate of similar class under the Coal Mines Regulation	Duration of Practical experience necessary in coal mines in India	Examination to be passed, if any
(1)	(2)	(3)	(4)	(5)
1.	<i>Certificates granted under the Mines and quarries Act, 1954 of Great Britain (as applicable to coal and other mines).</i>			
1.1	First Class Certificate of Competency	First Class Manager's Certificate.	Six months	See Byelaw 5
1.2	Second Class Certificate of Competency	Second Class Manager's Certificate.	Six months	See Byelaw 5
1.3	Surveyor's Certificate.	Surveyor's Certificate	No	No
1.4	Deputy's Certificate	Overman's Certificate	Six months	See Byelaw 7
1.5	Shotfirer's Certificate	Shotfirer's Certificate	No	No
1.6	Gas-testing Certificate	Gas-testing Certificate	No	No

APPENDIX II

(See Byelaw 2)

Equivalents of Certificates granted under Metalliferous Mines Regulations etc. considered for exchange.

Sl. No.	Class of Certificate under Metalliferous Mines Regulations	Certificate of similar class under Coal Mines Regulations	Duration of practical experience necessary in coal mines in India	Examination to be passed if any
(1)	(2)	(3)	(4)	(5)
1.	<i>Certificate granted under the Mysore Gold Mines Regulation, 1953.</i>			
1.1	Winding Engine driver's Certificate I Class	I Class Engine Driver's Certificate.	No	No
1.2	Winding Engine driver's Certificate II Class	II Class Engine Driver's Certificate.	No	No
1.3	Underground Mestri's Certificate	Sirdar's Certificate	18 months	See Byelaw 7
1.4	Blaster's Certificate	Shotfirer's Certificate	Nil	Nil
2.	<i>Certificate granted under the Metalliferous Mines Regulations 1961.</i>			
2.1	First Class Manager's unrestricted Certificate	First Class Manager's Certificate.	Two years	See Byelaw 5
2.2	Second Class Manager's unrestricted Certificate	Second Class Manager's Certificate.	18 months	See Byelaw 5
2.3	Surveyor's unrestricted Certificate	Surveyors Certificate	No	No
2.4	Mine Foreman's unrestricted Certificate	Overman's Certificate	18 months	See Byelaw 7
2.5	Mining mates unrestricted Certificate	Sirdar's Certificate	18 months	See Byelaw 7
2.6	I Class Winding Engine driver's Certificate	I Class Winding Engine Driver's Certificate.	No	No
2.7	II Class Winding Engine driver's Certificate	II Class Winding Engine Driver's Certificate.	No	No
2.8	Blaster's unrestricted Certificate	Shotfirer's Certificate	No	No
2.9	Gas-testing Certificate	Gas-testing Certificate	No	No

APPENDIX III

(See Byelaw 4)

Form of application for prior registration for practical training.

[Proviso to Regulation 21(2)]

To

The Chief Inspector of Mines,
Government of India,
DHANBAD, E.R.

Sir,

I am desirous of applying for the grant of an Exchange First Class/Second Class Manager's Certificate under Regulation 21 of the Coal Mines Regulation, 1957, and furnish the following details. I would request for your approval to the course of practical training detailed below :

- (a) (i) Full name :
(ii) Nationality :
(iii) Address :
(iv) Date of Birth :
(v) Father's name :
(vi) Home address in full—
Village :
Thana :
District :
State :

- (b) (i) Kind and Class of certificate held :
(ii) Act under which certificate was granted :
(iii) Number and date of certificate :
(iv) Full details of qualifications :
(v) Class, Number and date of certificates, if any, held under the (Indian) Mines Act :
(c) (i) Full details of previous mining experience (including experience obtained in India) :
(ii) The mine(s) in which it is proposed to obtain training in India : (Give average monthly output, in each case :
(iii) The capacity in which it is proposed to obtain training in India.
(iv) Whether the management(s) of the mine(s) have agreed to give facilities for the training :
(v) Date on which it is proposed to commence training :
(d) Any other relevant information which the applicant may like to mention :

Yours faithfully,

Signature of Applicant
Postal address in India.....

Date :

APPENDIX IV

Syllabus of the examination for the **FIRST CLASS EXCHANGE CERTIFICATE OF COMPETENCY** for candidates holding a Coal Mine Manager's Certificate of similar class.

[See Byelaw 5(1)(a)]

(i) WINNING AND WORKING

Geological features of coalfields. Nature and occurrence of coal. Description of Indian coalfields. Application of geology to mining.

Methods of boring. Boring through disturbed strata. Borehole surveying.

Methods of sinking. In ordinary and waterlogged grounds. In running sand, etc. Freezing, cementation and other special methods. Shaft supports, temporary and permanent. Tubbings.

Driving of incline shafts and drifts.

Siting, development and layout of mines, including surface and underground arrangements. Layout and development of shaft-top, pit-bottom and haulage arrangements.

Opencast methods of mining. Different layouts. Mechanised quarrying with deephole blasting and heavy machinery. Benching and other safety precautions.

Underground mining. Methods of work (Longwall, Pillar and Stall, American modifications. Horizon mining, etc.). Influence of depth, seam thickness, inclination, etc., on selection of method of work. Conditions peculiar to India.

Development schemes. Methods of depillaring. Longwall mining.

Mechanised mining. Modern layouts and designs. Mechanised stone drifting.

Support of strata. Roadway and face supports, their types, setting, withdrawal, etc. Packing and stowing.

Roof control. Theories of ground movement. Theories of strata control. Strength of rock. Shaft pillars. Protection of surface structures. Subsidence. Problems of deep mining; bumps.

Use of explosives. Blasting techniques in coal, Stone, etc.; and their relative efficiency. Simultaneous shot-firing.

(ii) MINE MANAGEMENT, LEGISLATION AND GENERAL SAFETY

Mine Organisation. Principles of management and industrial discipline. Personnel management.

Recruitment, selection, training and control of staff.

Mines Act, and Regulations, Rules and Bye-laws, etc., made thereunder. Electricity Act and Rules applicable to coal mines. Other legislation applicable to coal mines.

Accidents. Their causes and prevention. Accident statistics. Rates of accidents. Relation between accidents and technical efficiency. Accident reports.

First aid and ambulance work.

Investigation after explosions.

Mine rescue. Mine gases and their physiological effects. Rescue equipment. Resuscitation and reviving apparatus. Selection and training for rescue work.

Silicosis and pneumokoniosis. Physiological aspects of breathing in dust-laden atmospheres. Dust-sampling and sampling instruments. Methods of counting and analysis.

Other miners' diseases. Their symptoms, prevention and treatment.

Lighting. General principles of artificial lighting. Lighting standards and their assessment. Lighting from electric mains.

Sanitation and health.

APPENDIX V

Syllabus of the examination for the **SECOND CLASS EXCHANGE CERTIFICATE OF COMPETENCY** for candidates holding a Coal Mine Manager's Certificate of similar class.

[See Byelaw 5(1)(a)]

(i) WINNING AND WORKING

Nature and occurrence of coal. Geological features of coalfields. Description of Indian coalfields.

Methods of boring. Boring through disturbed strata.

Methods of sinking. In ordinary and water-logged grounds. Shaft supports, temporary and permanent.

Driving of drifts.

Layout and development of simple shaft-top, pit-bottom and haulage arrangements.

Opencast methods of mining. Different layouts. Mechanised quarrying with deephole blasting and heavy machinery. Benching and other safety precautions.

Underground mining. Methods of work : Longwall, Pillar and Stall. Methods of depillaring. Longwall mining. Stone drifting. Support of strata. Roadway and face supports, their types, setting, withdrawal, etc. Packing and stowing. Roof control; Bumps. Shaft pillars. Protection of surface structures. Subsidence.

Use of explosives in coal, stone, etc. Simultaneous shotfiring.

(ii) MINE MANAGEMENT, LEGISLATION AND GENERAL SAFETY

Mine Organisation. Recruitment and control of staff.

Mines Act, and Regulations, Rules and Bye-laws, etc., made thereunder. Other legislation applicable to coal mines.

Accidents. Their causes and prevention. Accident reports.

First Aid.

Mine Rescue. Mine gases and their physiological effect. Rescue equipment. Resuscitation and reviving apparatus. Selection and training for rescue work.

Silicosis and pneumokoniosis. Dust-sampling and analysis.

Other miners' diseases. Their symptoms, prevention and treatment.

Lighting standards and their assessment.

Sanitation and health.

APPENDIX VI

Syllabus of the examination for the **FIRST CLASS EXCHANGE CERTIFICATE OF COMPETENCY** for candidates holding a Metalliferous Mine Manager's Certificate of similar class.

[See Byelaw 5(1)(b)]

(i) WINNING AND WORKING

Geological features of coalfields. Nature and occurrence of coal. Description of Indian coalfields. Application of geology to mining.

Methods of sinking. In ordinary and water-logged grounds. In running sand, etc. Freezing, cementation and other special methods. Shaft supports, temporary and permanent. Tubbings.

Driving incline shafts and drifts.

Siting, development and layout of mines, including surface and underground arrangements. Layout and development of shaft-top, pit-bottom and haulage arrangements.

Opencast methods of mining. Different layouts. Mechanised quarrying with deephole blasting and heavy machinery. Benching and other safety precautions.

Underground mining. Methods of work (Longwall, Pillar and Stall, American modifications. Horizon mining etc.). Influence of depth, seam thickness, inclination, etc., on selection of method of work. Conditions peculiar to India.

Development schemes. Methods of depillaring. Longwall mining.

Mechanised mining. Modern layouts and designs. Mechanised stone drifting.

Support of strata. Roadway and face supports, their types, setting, withdrawal, etc. Packing and stowing.

Roof control. Theories of ground movement. Theories of strata control. Strength of rock. Shaft pillars. Protection of surface structures. Problems of deep mining; bumps.

Use of explosives. Blasting techniques in coal, stone etc.; and their relative efficiency. Simultaneous shot-firing.

(ii) MINE VENTILATION, EXPLOSIONS AND FIRES

Laws of airflow in mines. Theory of air resistance, etc. Resistance and splitting problems.

Natural ventilation.

Mechanical ventilators; different types, their efficiency and characteristics. Fan accessories, Booster and auxiliary fans. Ventilation of headings and sinking shafts. Distribution, measurement and control of air in mines. Reversal of ventilation.

Heat and humidity. Sources, effects and control of heat in mines. Geothermic gradients. Cooling of air.

Ventilation planning. Pollution of air in mines. Determining requirements of ventilations. Determination of size of shafts, airways, etc. Design of ventilation systems. Ventilation surveys. Ventilation plans.

Firedamp and coal dust explosions, their causes and prevention. Inflammability of firedamp and coal dust.

Occurrence, properties, characteristics, detection and measurement of firedamp. Dilution of firedamp, including methods of drainage.

Suppression and treatment of coal dust. Properties of stone dusts. Sampling and analysis of road dusts.

Flame and electric safety lamps. Their design, use and maintenance. Testing of safety lamps. Lamp houses and organisations.

Development of safe explosives. Permitted and EQS explosives. Composition and testing of safe explosives. Millisecond detonators. Alternatives to explosives.

Fires and spontaneous heating. Methods of preventing, detecting and controlling mine fires. Sealing off fire-areas. Build-up of extinctive atmosphere.

Firefighting, both on surface and belowground.

Recovery of mines after explosions and fires. Reports on such occurrences.

(iii) MINE MANAGEMENT, LEGISLATION AND GENERAL SAFETY

Mine Organisation. Principles of management and industrial discipline. Personnel management.

Recruitment, selection, training and control of staff.

Mines Act, and Regulations, Rules and Bye-laws, etc., made thereunder. Electricity Act and Rules applicable to coal mines. Other legislation applicable to coal mines.

Accidents. Their causes and prevention. Accident statistics. Rates of accidents. Relation between accidents and technical efficiency. Accident reports.

First aid and ambulance work.

Investigation after explosions.

Mine rescue. Mine gases and their physiological effects. Rescue equipment. Resuscitation and reviving apparatus. Selection and training for rescue work.

Silicosis and pneumokoniosis. Physiological aspects of breathing in dust-laden atmospheres. Dust-sampling and sampling instruments. Methods of counting and analysis.

Other miners' diseases. Their symptoms, prevention and treatment.

Lighting. General principles and artificial lighting. Lighting standards and their assessment. Lighting from electric mains.

Sanitation and health.

APPENDIX VII

Syllabus of the examination for the SECOND CLASS CERTIFICATE OF COMPETENCY for candidates holding a Metalliferous Mine Manager's Certificate of Competency of similar class.

[See Byelaw 5(1)(b)]

(i) WINNING AND WORKING

Nature and occurrence of coal. Geological features of coalfields. Description of Indian coalfields.

Methods of boring. Boring through disturbed strata.

Methods of sinking. In ordinary and waterlogged grounds. Shaft supports, temporary and permanent.

Driving of drifts.

Layout and development of simple shaft-top, pit-bottom and haulage arrangements.

Opencast methods of mining. Different layouts. Mechanised quarrying with deephole blasting and heavy machinery. Benching and other safety precautions.

Underground mining. Methods of work: Longwall, Pillar and Stall. Methods of depillaring. Longwall mining. Stone drifting. Support of strata. Roadway and face supports, their types, setting, withdrawal, etc. Packing and stowing. Roof control; Bumps. Shaft pillars. Protection of surface structures. Subsidence.

Use of explosives in coal, stone, etc. Simultaneous shotfiring.

(ii) MINE VENTILATION, EXPLOSIONS AND FIRES

Natural ventilation. Mechanical ventilators. Fan accessories. Booster and auxiliary fans. Ventilation of headings and sinking shafts. Distribution, measurement and control of air in mines. Reversal of ventilation.

Head and humidity.

Pollution of air in mines. Determining requirements of ventilation, ventilation surveys. Ventilation plans.

Firedamp and coal dust explosions; their causes and prevention. Inflammability of firedamp and coal dust.

Occurrence, properties, characteristics, detection and measurement of firedamp.

Suppression and treatment of coal dust. Properties of stone dusts. Sampling and analysis of road dusts.

Flame and electric safety lamps. Their design, use and maintenance.

Development of safe explosives. Permitted and EQS explosives. Alternatives to explosives.

Fires and spontaneous heating. Methods of preventing, detecting and controlling mine fires. Sealing off fire-areas.

Firefighting, both on surface and belowground.

Recovery of mines after explosions and fires.

(iii) MINE MANAGEMENT, LEGISLATION AND GENERAL SAFETY

Mine Organisation. Recruitment and control of staff.

Mines Act, and Regulations, Rules and Bye-laws, etc., made thereunder. Other legislation applicable to coal mines.

Accidents. Their causes and prevention. Accident reports.

First Aid.

Mine Rescue. Mine gases and their physiological effect. Rescue equipment. Resuscitation and reviving apparatus. Selection and training for rescue work.

Silicosis and pneumokoniosis. Dust-sampling and analysis.

Other miners' diseases. Their symptoms, prevention and treatment.

Lighting standards and their assessment.

Sanitation and health.

APPENDIX VIII

Syllabus for the Examination for Overman's Exchange Certificate of Competency

[See Byelaw 7(1)]

(a) GENERAL SAFETY AND LEGISLATION

Duties and responsibilities of workmen, competent persons and officials (excluding managers, assistant managers, engineers and surveyors). Discipline amongst workers, and control of staff.

Provisions of the Coal Mines Regulations and Rules relating to Mine Workings; Explosives and Shotfiring, Haulage; First Aid; General knowledge of regulations and rules relating to ventilation, precautions against danger from fire, dust, gas and water; and of other provisions, the enforcement of, and compliance with which is and can be the responsibility of Overman.

Writing of reports required to be made by Overman under the regulations.

Dangerous occurrences in mines, and how to deal with them. Accidents. Their causes and prevention. Accident reports. Disturbing the place of accident.

Mine Rescue. Physiological effect mine gases. Rescue equipment. First Aid.

Sanitation and health. Miners' diseases; their main symptoms and prevention.

(b) METHODS OF WORKING

Nature of occurrence of coal. Geological disturbances and their effects on working conditions; dangers and precautionary measures while approaching the same.

The purpose and utility of boreholes in mines, Shaft sinking safety devices. Shaft supports; temporary and permanent in sinking and working shafts. Examination of shafts and outlets.

Opencast methods of mining—mechanised and hand-cut working. Benching and other safety precautions.

Underground mining; General principles of pillar and stall method and longwall work. Multi-section work. Methods of depillaring under different conditions. Stone drifting.

Support of strata—Roadway and face supports, their types setting, withdrawal etc. Systematic timbering rules. Packing and stowing.

Elements of roof control—Protection of surface structures. Working beneath statutorily restricted areas and surface structures.

Gates and fencing; different kinds of fences.

Inspection of workings and roadways.

Travelling roadways; their maintenances and inspection.

Reading of statutory plans.

Use and safe handling of explosives in coal and stone, in gassy and non-gassy mines; Simultaneous shotfiring.

(c) VENTILATION, AND PRECAUTIONS WITH RESPECT TO EXPLOSIONS, FIRES, INUNDATION.

Natural and mechanical ventilation. Ventilation headings and sinking shafts. Siting of auxiliary fans underground. Distribution, measurement and control of air in mines. Reading of anemometer. Calculation of areas and volumes. Maintenance of ventilation appliances.

Elementary knowledge of causes of prevention of fire-damp and coal dust explosions. Limits of inflammability of fire-damp and coal dust.

Pollution of air and irruption of gases in mines. Occurrence properties, characteristics, detection and measurement of fire-damp and noxious gases. Sampling of air. Irruption of gases and pollution of air in mines. Determination of environmental conditions.

Suppression and treatment of coal dust. Suitability of stone dusts. Sampling and analysis of road dusts.

Elements of design of flame and electric safety lamps; their use, examination and maintenance.

Fires and spontaneous heating. Elements of preventing, detecting and controlling mine fires. Sealing off fire-areas. Fire Stoppings and their examination. Precautions against outbreak of surface fires. Firefighting, both on surface and belowground.

Inspection of old workings.

Sources of danger from surface and underground water. Precautions to prevent inundations and irruptions of water. Boring machines for exploratory workings. Water dams. Water danger plans.

Recovery of mines after explosions, fires and inundations. Precautionary measures during re-opening and dewatering of mines.

(d) ELEMENTS OF MINING MACHINERY.

Safety aspects and safe use of different kinds of machinery used in mines. Brakes.

Use of steam engines.

Application of electricity in mines. Safety precautions.

Use of Internal Combustion engines in mines.

Winding equipment; Ropes and guides. Signalling and decking arrangements. Safety devices. Examination of winding equipment and shaft fittings.

Haulage and transport; Types of haulages. Rope and locomotive haulages. Self acting inclines. Haulage roads and roadways. Rails and tracks; their maintenance and inspection. Pit-tubs, Singalling, Safety devices, Unsafe practices. Derailments.

Drainage of water and water lodgements. Types of pumps. Principle and use of Syphons.

APPENDIX IX

Syllabus for the Examination for a Sirdar's Exchange Certificate of Competency

[See Byelaw 7(2)]

(i) Benching and sloping of opencast workings; examination and dressing of sides.

(ii) Methods of examining roof and sides of working places and roadways etc.; Fencing of opencast workings;

(iii) Methods of timbering and setting support, withdrawal of supports; Fencing of dangerous places.

(iv) Shotfiring, and transport and use of explosives in mines;

(v) Ventilation and mine gases—elementary;

(vi) Provisions of the Coal Mines Regulations, 1957, and Rules and Bye-laws made under the Mines Act, 1952, relating to the safety of persons employed in mines in general and to the duties of Sirdars and Shotfirers in particular.

APPENDIX X

Rules Governing the Conduct to the Written Examination

1. No candidate shall be admitted into the examination hall until he has produced an authorisation issued by the Secretary. No candidate arriving more than 30 minutes late shall be permitted to attend the examination; and no candidate arriving late shall be eligible for any extra compensatory time.

2. Before entering the examination hall, every candidate shall leave all books, notes and papers etc. outside.

3. Every candidate shall be required to sign in a register in which his roll number would be recorded.

4. Paper will be supplied, and no paper other than that so supplied shall be used.

5. Names shall not be written on the answer book. Every candidate shall write his roll number on the slip attached to the answer book and nowhere else. Any person who writes his roll number or name or initials etc., on his answer book is liable to be disqualified.

6. Ink will be provided. Candidates shall bring their own pens and pencils, drawing pens and drawing instruments, including protractor where required.

7. Slide Rules may be used. Candidates will be supplied with logarithmic tables if considered necessary by the examiner.

8. The calculations and other work by which a result is obtained shall be clearly shown on the left-hand side page, in immediate connection with the answer to the question under reference.

9. Sketches may be made to illustrate answers. When sketches are asked for, it should be understood that, unless otherwise stated, freehand sketches with dimensions are all that is necessary; and candidates need not spend time in making finished drawings.

10. Any candidate desiring to consult the examiner or requiring any paper or other material should stand in his seat to draw attention, but should not shout or call out.

11. Any candidate speaking to any other candidate, or consulting any book or notes, or using paper other than that supplied by the Board, or using any other unfair means or acting in a manner considered improper by the examiner, shall be liable to be disqualified.

12. No candidate shall leave the examination hall before the expiry of one hour after the commencement of the examination.

13. When a candidate has completed the answers to the questions or when the time allowed for answering the questions has elapsed, or when a candidate has been disqualified under Rule 11, he must hand over the answer book to the Secretary and at once leave the examination hall.

R. G. DEO
*Chief Inspector of Mines and Chairman,
Board of (Coal) Mining Examinations*